CLAIMS

What is claimed is:

1. A method for pricing a pricing unit, the method comprising the computer-implemented steps of:

during a particular time interval, concurrently offering the pricing unit at a plurality of price candidates;

making one or more L2B measurements for each of the plurality of price candidates for the particular time interval;

performing a comparison between the L2B measurements for the plurality of price candidates; and

determining how to price the pricing unit based on the comparison.

2. The method of Claim 1, wherein concurrently offering the pricing unit further comprises the steps of:

selecting the plurality of price candidates for a parallel offering operation from a pool of untested price candidates;

marking the plurality of price candidates as a plurality of active price candidates;

concurrently calibrating all active price candidates of the plurality of price candidates until there are no more active price candidates remaining to be calibrated; and

using in the parallel offering operation a model of demand to represent the demand corresponding to each price candidate, wherein the model of demand reflects a current L2B measurement.

3. The method of Claim 2, wherein the model of demand comprises a binomial model of demand.

4. The method of Claim 2, wherein the model of demand comprises performing a probabilistic estimation of a L2B ratio based on a Bayesian update of a binomial model of demand.

5. The method of Claim 4, wherein the Bayesian update includes using a Beta distribution to represent both a prior probability distribution of demand and a posterior probability distribution of demand.

6. The method of Claim 2, wherein the model of demand comprises one or more periodic resettings of a probability distribution of demand by temporally discounting previous L2B measurements in the probability distribution of demand corresponding to each price candidate.

7. The method of Claim 6, wherein the one or more periodic resettings of the probability distribution of demand includes performing a window averaging of each ordinate

value of a prior probability distribution of demand corresponding to each price candidate.

8. The method of Claim 2, wherein the pool of untested price candidates is user-selected.

9. The method of Claim 2, wherein selecting the plurality of price candidates for parallel offering is user-defined.

10. The method of Claim 2, wherein concurrently offering the plurality of price candidates further comprises the steps of:

using as a baseline price, a first-to-converge active price candidate from the plurality of active price candidates;

marking as a rejected price candidate any active price candidate that is determined as under-performing the baseline price and simultaneously performing the steps of:

if the pool of untested candidates has any remaining untested price candidates then replacing the rejected price candidate with any untested price candidate from the pool of untested price candidates;

marking the untested price candidate that is replacing the rejected price candidate as active for introduction into the plurality of active price

candidates for concurrent offering in the parallel offering operation; and

updating a probability distribution of demand corresponding to each active price candidate.

11. The method of Claim 10, wherein the first-to-converge price candidate is obtained by using the model of demand that comprises performing a probabilistic estimation of a L2B ratio based on a Bayesian update of the probability distribution of demand.

12. The method of Claim 10, wherein updating a probability distribution of demand comprises performing a window averaging of each ordinate value of the probability distribution of demand for the pricing unit corresponding to each price candidate.

13. The method of Claim 10, wherein any rejected price candidate is removed from the parallel offering operation.

14. The method of Claim 10, further comprising the steps of:

marking as an accepted price candidate any active price candidate that is determined as out-performing the baseline price and immediately replacing the baseline price with the accepted price candidate and simultaneously performing the steps of:

marking the baseline price that was replaced by the accepted price candidate as one of the rejected price candidates;

marking the accepted price candidate that replaced the baseline price as the baseline price;

if the pool of untested candidates has remaining untested candidates then replacing the rejected price candidate with any untested price candidate from the pool of untested price candidates;

marking the untested price candidate that is replacing the rejected price candidate as another active price candidate for introduction into the plurality of active price candidates for concurrent offering; and

updating the probability distribution of demand corresponding to each active price candidate.

15. The method of Claim 10, further comprising the steps of:

if the pool of untested candidates has no remaining untested candidates then determining whether there are any remaining active price candidates being concurrently tested; and

if it is determined that there are no remaining active price candidates, then marking the baseline price as a current price for the pricing unit.

16. The method of Claim 1, further comprising the steps of:

monitoring a current price of the pricing unit during a monitor operation to determine whether a most-recent demand measurement (L2B measurement) that is measured during the monitor operation corresponding to the current price is within a predetermined demand interval; and

if the most-recent demand measurement (L2B measurement) is not within the predetermined demand interval, then adjusting the current price to form a new current price so that a new most-recent demand measurement (L2B measurement) corresponding to the new current price is within the predetermined demand interval.

17. The method of Claim 16, wherein adjusting the current price comprises automatically changing the current price without re-calibrating any price candidates.

18. The method of Claim 16, further comprising the step of:

if the most-recent demand measurement (L2B measurement) is not within the predetermined demand interval and a number of price adjustments to the current price exceeds a user-selected number of price adjustments, then determining a new pool of untested price candidates; and

restarting a parallel offering operation using the new pool of untested price candidates.

19. The method of Claim 16, wherein the predetermined demand interval is user-selected.

20. The method of Claim 16, wherein the predetermined demand interval surrounds a mean demand value corresponding to the current price.

21. The method of Claim 10 further comprising restarting the parallel offering operation using a new pool of untested price candidates when no baseline price emerges from the parallel offering operation.

22. A method for pricing a pricing unit, the method comprising the computer-implemented steps of:

during a series of time intervals, alternating between offering the pricing unit at a plurality of price candidates;

wherein the pricing unit is offered at a first price candidate during at least a first time interval and a third time interval, and the pricing unit is offered at a second price candidate during at least a second time interval that occurs after the first time interval and before the third time interval;

making one or more demand measurements (L2B measurements) for each of the plurality of price candidates based on sales of the pricing unit during the series of time intervals;

performing a comparison between the demand measurements (L2B measurements) for the plurality of price candidates; and

determining how to price the pricing unit based on the comparison.

23. The method of Claim 22, further comprising the steps of:

step (i): selecting the first price candidate and the second price candidate for serial offering from a pool of untested price candidates;

step (ii): serially calibrating in a serial offering operation the first price candidate and the second price candidate until a corresponding demand measurement for each price candidate has reached a predetermined threshold of demand value before determining a surviving baseline price, wherein the serial offering operation uses a model of demand to represent the demand corresponding to each price candidate and wherein the model of demand reflects a current L2B measurement;

step (iii): determining the surviving baseline price;

step (iv): updating a probability distribution of demand for the surviving baseline price;

step (v): repeating steps (ii), (iii), (iv) until there are no remaining untested price candidates from the pool of untested price candidates by:

using the surviving baseline price as the first price candidate;

selecting any untested price candidate from the pool of untested price candidates as the second price candidate;

selecting the surviving baseline price as a current price for the pricing unit when there are no remaining untested price candidates form the pool of untested price candidates.

24. The method of Claim 23, wherein the model of demand comprises using a binomial model of demand.

25. The method of Claim 23, wherein the model of demand comprises performing a probabilistic estimation of a L2B ratio based on a Bayesian update of the probability distribution of demand.

26. The method of Claim 25, wherein the Bayesian update includes using a Beta distribution to represent both a prior probability distribution of demand and a posterior probability distribution of demand.

27. The method of Claim 23, wherein updating the probability distribution of the surviving baseline price comprises periodic resetting of the probability distribution of demand by temporally discounting previous L2B measurements in the probability distribution of demand corresponding to each price candidate.

28. The method of Claim 23, wherein updating the probability distribution of the surviving baseline price comprises performing a window averaging of each ordinate

value of the probability distribution of demand for the pricing unit corresponding to each price candidate.

29. The method of Claim 28, wherein the probability distribution of demand is initially a uniform probability distribution.

30. The method of Claim 23, further comprising the steps of:

marking the first price candidate as a first active price candidate;

calibrating the first active price candidate until a first demand measurement (L2B measurement) corresponding to the first active price candidate reaches the predetermined threshold of demand value; and

when the first active price candidate reaches the predetermined threshold of demand value, marking the first active price candidate as a first pending price candidate.

31. The method of Claim 30, further comprising the steps of:

after the first active price candidate reaches the predetermined threshold of demand value, selecting the second price candidate for the serial offering operation from the pool of untested price candidates;

marking the second price candidate as a second active price candidate;

calibrating the second active price candidate until a second demand measurement (L2B measurement) corresponding to the second active price candidate reaches the predetermined threshold of demand value; and

when the second active price candidate reaches the predetermined threshold of demand value, marking the second active price candidate as a second pending price candidate.

32. The method of Claim 23, further comprising the steps of:

selecting for serial offering until convergence one pending price candidate that is a member of a set of pending price candidates that includes a first pending price candidate and a second pending price candidate;

if the selected pending price candidate reaches convergence, using the selected pending price candidate as a baseline price; and

determining whether a remaining pending price candidate that was not selected for serial offering until convergence from the set of pending price candidates out-performs or under-performs the baseline price.

33. The method of Claim 32, further comprising the steps of:

if the remaining pending price candidate that was not selected for serial offering until convergence out-performs the baseline price, then rejecting the baseline price and use the remaining pending price candidate that out-performs the baseline price as the surviving baseline price; and

if the remaining pending price candidate that was not selected for serial offering until convergence under-performs the baseline price, then rejecting the remaining pending price candidate that under-performs the baseline price and use the baseline price as the surviving baseline price.

34. The method of Claim 32, further comprising the steps of:

step A: if the selected pending price candidate does not reach convergence, then rejecting the selected pending price candidate;

step B: selecting a new untested price candidate from the pool of untested price candidates;

step C: marking the new untested price candidate as a new active price candidate;

step D: calibrating the new active price candidate until a new demand measurement (L2B measurement) corresponding to the new active price candidate reaches the predetermined threshold of demand value;

step E: when the new active price candidate reaches the predetermined threshold of demand value, marking the new active price candidate as a new pending price candidate; and

step F: selecting for serial offering until convergence one pending price candidate that is a member of a new set of pending price candidates that includes the remaining pending price candidate and the new pending price candidate;

step G: determining whether the selected pending price candidate reaches convergence;

step H: if the selected pending price candidate does not reach convergence, then rejecting the selected pending price candidate and repeating steps B, C, D, E, F, G, H until the selected pending price candidate reaches convergence;

using the selected pending price candidate that reaches convergence as the baseline price; and

determining whether a new remaining pending price candidate that was not selected for serial offering until convergence from the new set of pending price candidates out-performs or under-performs the baseline price;

if the new remaining pending price candidate that was not selected for serial offering until convergence out-performs the baseline price, then rejecting the baseline price and use the new remaining pending price candidate that out-performs the baseline price as the surviving baseline price; and

if the new remaining pending price candidate that was not selected for serial offering until convergence under-performs the baseline price, then rejecting the new remaining pending price candidate that under-performs the baseline price and use the baseline price as the surviving baseline price.

35. The method of Claim 22, further comprising the steps of:

monitoring a current price of the pricing unit during a monitor operation to determine whether a most-recent demand measurement (L2B measurement) that is measured during the monitor operation corresponding to the current price is within a predetermined demand interval; and

if the most-recent demand measurement (L2B measurement) is not within the predetermined demand interval, then adjusting the current price to form a new current price so that a new most-recent demand measurement (L2B measurement) corresponding to the new current price is within the predetermined demand interval.

36. The method of Claim 35, wherein adjusting the current price comprises automatically changing the current price without re-calibrating any price candidates.

37. The method of Claim 35, further comprising the step of:

if the most-recent demand measurement (L2B measurement) is not within the predetermined demand interval and a number of price adjustments to the current price exceeds a user-selected number of price adjustments, then determining a new pool of untested price candidates; and

restarting a serial offering operation using the new pool of untested price candidates.

38. The method of Claim 35, wherein the predetermined demand interval is user-selected.

39. The method of Claim 35, wherein the predetermined demand interval surrounds a mean demand value corresponding to the current price.

40. A computer-readable medium carrying one or more sequences of instructions for pricing a pricing unit, wherein execution of the one or more sequences of instructions by one or more processors causes the one or more processors to perform the steps of:

during a particular time interval, concurrently offering the pricing unit at a plurality of price candidates;

making one or more L2B measurements for each of the plurality of price candidates for the particular time interval;

performing a comparison between the L2B measurements for the plurality of price candidates; and

determining how to price the pricing unit based on the comparison.

41. The computer-readable medium of Claim 40, wherein concurrently offering the pricing unit further comprises the steps of:

selecting the plurality of price candidates for a parallel offering operation from a pool of untested price candidates;

marking the plurality of price candidates as a plurality of active price candidates;

concurrently calibrating all active price candidates of the plurality of price candidates until there are no more active price candidates remaining to be calibrated; and

using in the parallel offering operation a model of demand to represent the demand corresponding to each price candidate, wherein the model of demand reflects a current L2B measurement.

42. The computer-readable medium of Claim 41, wherein the model of demand comprises a binomial model of demand.

43. The computer-readable medium of Claim 41, wherein the model of demand comprises performing a probabilistic estimation of a L2B ratio based on a Bayesian update of a binomial model of demand.

44. The computer-readable medium of Claim 43, wherein the Bayesian update includes using a Beta distribution to represent both a prior probability distribution of demand and a posterior probability distribution of demand.

45. The computer-readable medium of Claim 41, wherein the model of demand comprises one or more periodic resettings of a probability distribution of demand by temporally discounting previous L2B measurements in the probability distribution of demand corresponding to each price candidate.

46. The computer-readable medium of Claim 45, wherein the one or more periodic resettings of the probability distribution of demand includes performing a window averaging of each ordinate value of a prior probability distribution of demand corresponding to each price candidate.

47. The computer-readable medium of Claim 41, wherein the pool of untested price candidates is user-selected.

48. The computer-readable medium of Claim 41, wherein selecting the plurality of price candidates for parallel offering is user-defined.

49. The computer-readable medium of Claim 41, wherein concurrently offering the plurality of price candidates further comprises the steps of:

using as a baseline price, a first-to-converge active price candidate from the plurality of active price candidates;

marking as a rejected price candidate any active price candidate that is determined as under-performing the baseline price and simultaneously performing the steps of:

if the pool of untested candidates has any remaining untested price candidates then replacing the rejected price candidate with any untested price candidate from the pool of untested price candidates;

marking the untested price candidate that is replacing the rejected price candidate as active for introduction into the plurality of active price candidates for concurrent offering in the parallel offering operation; and

updating a probability distribution of demand corresponding to each active price candidate.

50. The computer-readable medium of Claim 49, wherein the first-to-converge price candidate is obtained by using the model of demand that comprises performing a probabilistic estimation of a L2B ratio based on a Bayesian update of the probability distribution of demand.

51. The computer-readable medium of Claim 49, wherein updating a probability distribution of demand comprises performing a window averaging of each ordinate value of the probability distribution of demand for the pricing unit corresponding to each price candidate.

52. The computer-readable medium of Claim 49, wherein any rejected price candidate is removed from the parallel offering operation.

53. The computer-readable medium of Claim 49, further comprising the steps of:

marking as an accepted price candidate any active price candidate that is determined as out-performing the baseline price and immediately replacing the baseline price with the accepted price candidate and simultaneously performing the steps of:

marking the baseline price that was replaced by the accepted price candidate as one of the rejected price candidates;

marking the accepted price candidate that replaced the baseline price as the baseline price;

if the pool of untested candidates has remaining untested candidates then replacing the rejected price candidate with any untested price candidate from the pool of untested price candidates;

marking the untested price candidate that is replacing the rejected price candidate as another active price candidate for introduction into the plurality of active price candidates for concurrent offering; and

updating the probability distribution of demand corresponding to each active price candidate.

54. The computer-readable medium of Claim 49, further comprising the steps of:

if the pool of untested candidates has no remaining untested candidates then determining whether there are any remaining active price candidates being concurrently tested; and

if it is determined that there are no remaining active price candidates, then marking the baseline price as a current price for the pricing unit.

55. The computer-readable medium of Claim 40, further comprising the steps of:

monitoring a current price of the pricing unit during a monitor operation to determine whether a most-recent demand measurement (L2B measurement) that is measured during the monitor operation corresponding to the current price is within a predetermined demand interval; and

if the most-recent demand measurement (L2B measurement) is not within the predetermined demand interval, then adjusting the current price to form a new current price so that a new most-recent demand measurement (L2B measurement) corresponding to the new current price is within the predetermined demand interval.

56. The computer-readable medium of Claim 55, wherein adjusting the current price comprises automatically changing the current price without re-calibrating any price candidates.

57. The computer-readable medium of Claim 55, further comprising the step of:

if the most-recent demand measurement (L2B measurement) is not within the predetermined demand interval and a number of price adjustments to the current price exceeds a user-selected number of price adjustments, then determining a new pool of untested price candidates; and

restarting a parallel offering operation using the new pool of untested price candidates.

58. The computer-readable medium of Claim 55, wherein the predetermined demand interval is user-selected.

59. The computer-readable medium of Claim 55, wherein the predetermined demand interval surrounds a mean demand value corresponding to the current price.

60. The computer-readable medium of Claim 49 further comprising restarting the parallel offering operation using a new pool of untested price candidates when no baseline price emerges from the parallel offering operation.

61. A computer-readable medium carrying one or more sequences of instructions for pricing a pricing unit, wherein execution of the one or more sequences of instructions by one or more processors causes the one or more processors to perform the steps of:

during a series of time intervals, alternating between offering the pricing unit at a plurality of price candidates;

wherein the pricing unit is offered at a first price candidate during at least a first time interval and a third time interval, and the pricing unit is offered at a second price candidate during at least a second time interval that occurs after the first time interval and before the third time interval;

making one or more demand measurements (L2B measurements) for each of the plurality of price candidates based on sales of the pricing unit during the series of time intervals;

performing a comparison between the demand measurements (L2B measurements) for the plurality of price candidates; and

determining how to price the pricing unit based on the comparison.

62. The computer-readable medium of Claim 61, further comprising the steps of:

step (i): selecting the first price candidate and the second price candidate for serial offering from a pool of untested price candidates;

step (ii): serially calibrating in a serial offering operation the first price candidate and the second price candidate until a corresponding demand measurement for each price candidate has reached a predetermined threshold of demand value before determining a surviving baseline price, wherein the serial offering operation uses a model of demand to represent the demand corresponding to each price candidate and wherein the model of demand reflects a current L2B measurement;

step (iii): determining the surviving baseline price;

step (iv): updating a probability distribution of demand for the surviving baseline price;

step (v): repeating steps (ii), (iii), (iv) until there are no remaining untested price candidates from the pool of untested price candidates by:

using the surviving baseline price as the first price candidate;

selecting any untested price candidate from the pool of untested price candidates as the second price candidate;

selecting the surviving baseline price as a current price for the pricing unit when there are no remaining untested price candidates form the pool of untested price candidates.

63. The computer-readable medium of Claim 62, wherein the model of demand comprises using a binomial model of demand.

64. The computer-readable medium of Claim 62, wherein the model of demand comprises performing a probabilistic estimation of a L2B ratio based on a Bayesian update of the probability distribution of demand.

65. The computer-readable medium of Claim 64, wherein the Bayesian update includes using a Beta distribution to represent both a prior probability distribution of demand and a posterior probability distribution of demand.

66. The computer-readable medium of Claim 62, wherein updating the probability distribution of the surviving baseline price comprises periodic resetting of the probability distribution of demand by temporally discounting previous L2B

measurements in the probability distribution of demand corresponding to each price candidate.

67. The computer-readable medium of Claim 62, wherein updating the probability distribution of the surviving baseline price comprises performing a window averaging of each ordinate value of the probability distribution of demand for the pricing unit corresponding to each price candidate.

68. The computer-readable medium of Claim 67, wherein the probability distribution of demand is initially a uniform probability distribution.

69. The computer-readable medium of Claim 62, further comprising the steps of:

marking the first price candidate as a first active price candidate;

calibrating the first active price candidate until a first demand measurement (L2B measurement) corresponding to the first active price candidate reaches the predetermined threshold of demand value; and

when the first active price candidate reaches the predetermined threshold of demand value, marking the first active price candidate as a first pending price candidate.

70. The computer-readable medium of Claim 69, further comprising the steps of:

after the first active price candidate reaches the predetermined threshold of demand value, selecting the second price candidate for the serial offering operation from the pool of untested price candidates;

marking the second price candidate as a second active price candidate;

calibrating the second active price candidate until a second demand measurement (L2B measurement) corresponding to the second active price candidate reaches the predetermined threshold of demand value; and

when the second active price candidate reaches the predetermined threshold of demand value, marking the second active price candidate as a second pending price candidate.

71. The computer-readable medium of Claim 62, further comprising the steps of:

selecting for serial offering until convergence one pending price candidate that is a member of a set of pending price candidates that includes a first pending price candidate and a second pending price candidate;

if the selected pending price candidate reaches convergence, using the selected pending price candidate as a baseline price; and

determining whether a remaining pending price candidate that was not selected for serial offering until convergence from the set of pending price candidates out-performs or under-performs the baseline price.

72. The computer-readable medium of Claim 71, further comprising the steps of:

if the remaining pending price candidate that was not selected for serial offering until convergence out-performs the baseline price, then rejecting the baseline price

and use the remaining pending price candidate that out-performs the baseline price as the surviving baseline price; and

if the remaining pending price candidate that was not selected for serial offering until convergence under-performs the baseline price, then rejecting the remaining pending price candidate that under-performs the baseline price and use the baseline price as the surviving baseline price.

73. The computer-readable medium of Claim 71, further comprising the steps of:

step A: if the selected pending price candidate does not reach convergence, then rejecting the selected pending price candidate;

step B: selecting a new untested price candidate from the pool of untested price candidates;

step C: marking the new untested price candidate as a new active price candidate;

step D: calibrating the new active price candidate until a new demand measurement (L2B measurement) corresponding to the new active price candidate reaches the predetermined threshold of demand value;

step E: when the new active price candidate reaches the predetermined threshold of demand value, marking the new active price candidate as a new pending price candidate; and

step F: selecting for serial offering until convergence one pending price candidate that is a member of a new set of pending price candidates that includes the remaining pending price candidate and the new pending price candidate;

step G: determining whether the selected pending price candidate reaches convergence;

step H: if the selected pending price candidate does not reach convergence, then rejecting the selected pending price candidate and repeating steps B, C, D, E, F, G, H until the selected pending price candidate reaches convergence;

using the selected pending price candidate that reaches convergence as the baseline price; and

determining whether a new remaining pending price candidate that was not selected for serial offering until convergence from the new set of pending price candidates out-performs or under-performs the baseline price;

if the new remaining pending price candidate that was not selected for serial offering until convergence out-performs the baseline price, then rejecting the baseline price and use the new remaining pending price candidate that out-performs the baseline price as the surviving baseline price; and

if the new remaining pending price candidate that was not selected for serial offering until convergence under-performs the baseline price, then rejecting the new remaining pending price candidate that under-performs the baseline price and use the baseline price as the surviving baseline price.

74. The computer-readable medium of Claim 61, further comprising the steps of:

monitoring a current price of the pricing unit during a monitor operation to determine whether a most-recent demand measurement (L2B measurement) that is measured during the monitor operation corresponding to the current price is within a predetermined demand interval; and

if the most-recent demand measurement (L2B measurement) is not within the predetermined demand interval, then adjusting the current price to form a new

current price so that a new most-recent demand measurement (L2B measurement) corresponding to the new current price is within the predetermined demand interval.

75. The computer-readable medium of Claim 74, wherein adjusting the current price comprises automatically changing the current price without re-calibrating any price candidates.

76. The computer-readable medium of Claim 74, further comprising the step of:

if the most-recent demand measurement (L2B measurement) is not within the predetermined demand interval and a number of price adjustments to the current price exceeds a user-selected number of price adjustments, then determining a new pool of untested price candidates; and

restarting a serial offering operation using the new pool of untested price candidates.

77. The computer-readable medium of Claim 74, wherein the predetermined demand interval is user-selected.

78. The computer-readable medium of Claim 74, wherein the predetermined demand interval surrounds a mean demand value corresponding to the current price.